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A PROPOSED SOLUTION FOR THE NON-PERFORMING LOANS IN THE PORTUGUESE BANKING SYSTEM

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Abstract

This paper aims to propose a solution for the current problem of Non-Performing Loans (NPLs) in the Portuguese banking system. The analysis starts with an overview of the theoretical responses to an overall NPL problem. This is followed by a description of the relevant events in the last decade within the Portuguese banking system and of the solution currently being studied by the Portuguese government. The paper concludes that the solution has severe flaws, and proposes an alternative solution that consists on a centralized asset management company.

Keywords: Non-Performing Loans; Asset Management Company; Asset Protection Scheme

1. Introduction

The deterioration of the performance of the exposures on banks' balance sheets has proven to have a significant impact on both the banking system and the overall economy. Currently, this problem is affecting some European countries, including Portugal. Therefore, there is an urgent need for measures that efficiently tackle this problem.

This paper aims to analyze both recent relevant events in the Portuguese banking system and possible solutions to the problem and, according to the results of that analysis, to present the solution that best suits the problem in Portugal.

2. Literature Review: Possible Responses to the NPL Problem

A Non-Performing Loan (NPL) is a loan that is not earning any income, for one or more of three reasons: the full payment of the principal and interest is no longer expected; the principal or interest payments are in arrears for 90 or more days; or the maturity date has already passed

and the full payment has not been made (Hou and Dickinson, 2007). The fact that a loan is not performing is an indicator of a debtor's inability (or unwillingness) to pay, given that problem loans increase as a result of firm's and households' financial distress.

Any policy response to a high NPL level involves decisions regarding the distribution of the incurred losses and costs across stakeholders over time. The policy should aim for a least-cost solution in the long term, maximizing the Net Present Value (NPV) of the NPLs, even if that involves incurring significant losses in the short-term. However, policymakers should also avoid triggering a fire sale, as it could result in unnecessary damage to the banking system. Hence, the timely resolution of NPLs should also be under scrutiny by the competent authorities, which is in line with the current micro and macroprudential policies within the European Union (EU).

According to the European Systemic Risk Board (2017), there are five main principles that should guide an NPL policy response: both the recognition and action should be swift, avoiding fire sales; losses should be borne primarily by shareholders and other investors, to avoid moral hazard incentives; all parties involved must comply with the EU legal framework; the response should include a long-term viability assessment on all the affected banks; and the problem should be addressed through a comprehensive package.

Although the aim of a public intervention during an NPL crisis is to minimize the inefficiencies associated with the resolution of the problem, the governmental intervention also implies some distortions, which must not exceed the benefits of said intervention (Claessens et al, 2014). Furthermore, state aid is now much stricter rules, enforced by the European Commission (EC) and other European authorities. For example, if a bank receives any type of state aid, it necessarily has to go through a restructuring process. Additionally, burden sharing is required, which implies that shareholders and junior bondholders have to fully absorb the bank losses

before state aid is triggered (Economic Governance Support Unit of the European Parliament, 2016; Laeven and Laryea, 2009).

Any NPL resolution program should be implemented at a certain pace that is neither too slow nor too fast, as both have some severe consequences. On one hand, if the NPL resolution is done too slowly, it could result in the misallocation of resources, as banks incur in zombie lending practices, as well as in a decrease in the creation of new loans and a delay in credit recovery. It also implies the prolongation of the elevated funding costs, as well as the further deterioration of the viability of distressed debtors. On the other hand, if the NPL resolution is done too rapidly, it could result in unnecessary fire sales, having an adverse impact on the remaining NPLs, as well as in an increase of banks' capital costs through the new loss-given-default (LGD) on both the performing loans and the new exposures. It also implies the liquidation of possibly viable entities, as well as an increase in the pressure of the country's social safety net.

A country that is suffering from a high NPL volume can try to handle the problem using two different approaches: the active approach, which tries to decrease the overall NPL value, and the passive approach, which tries to increase the total credit available in the economy, reducing the NPL ratio through its denominator (Bolgova, Nies and Plekhanov, 2016).

According to Bolgova, Nies and Plekhanov (2016), passive episodes tend to start with a lower debt-to-GDP ratio (28 percent versus 50 percent), and also with a lower income per capita ($5,600 versus $6,700). This reflects the fact that countries with a low credit-to-GDP ratio benefit more easily from a credit boom, which passively resolves the NPL problem. However, the danger that a passive approach turns into a "wait-and-see" approach should not be dismissed. A "wait-and-see" approach is a dangerous approach, as it could cast even more doubt over the banking system and its stability, tampering with investor confidence and damaging the

real economy. Furthermore, ignoring the existing problems within the banking system in the interest of sustaining the credit levels will, on average, lead to a more severe contraction of credit at a later stage (European Systemic Risk Board, 2017). Policymakers can prevent this type of approach through high levels of supervision.

On the other hand, an active approach consists of the sufficient capitalization of banks so that they can create provisions regarding NPL exposures. Once banks are recapitalized, their loss-absorbing capacity is boosted, allowing them to sustain further write-offs and Loan Loss Provisions (LLPs). An active approach is usually associated with some short-term costs for the governments (Bolgova, Nies and Plekhanov, 2016; Demertzis and Lehmann, 2017). Additionally, authorities should ensure the necessary conditions for banks to be able to write-off and sell these assets, such as adequate administrative and legal regimes, such an insolvency regime. An insolvency regime aims to help in the restructuring of corporate debt, and it is especially important in a downturn phase of the economic cycle, as there are a large number of firm bankruptcies. If the insolvency regime in place has structural inefficiencies, it will not allow for a timely resolution all bankruptcies through the conventional court system. Therefore, there is the need for an organized strategy that has to be able to support each individualized restructuring process and to promote a large-scale voluntary work-out between creditors and debtors. Inside this mechanism, groups of creditors would organize solutions for the firms in default, cooperating under the guidance of a lead bank to restructure said firms. The majority of the creditors would have to agree on a restructuring plan that binds all creditors and then implement it (Demertzis and Lehmann, 2017; De Haas and Knobloch, 2010; European Bank for Reconstruction and Development, 2010). To be reasonably effective, an insolvency regime has to include a few specific characteristics. First, creditors should have an automatic priority position regarding any payments that the debtors may make during the restructuring process. Second, if there is any devaluation of the loan collateral, the difference between its value and

the outstanding value of the loan should be treated as an unsecured loan for restructuring purposes. Third, the restructuring of debt, either in terms of principal repayment, interest payments, and maturity date should be sone taking into account the debtor's real future ability to pay These three tools can be combined in a way that incentives both borrowers and lenders to engage in the restructuring plan. Lastly, the restructuring should end when the debtors are both viable and free from unsustainable debt (Laeven and Laryea, 2009). SMEs are the most affected by a complex and inefficient legal framework, as a properly functioning system helps them to reach an agreement with their creditors without the need of court intervention, allowing sound firms in distress to continue operating and avoiding unnecessary company failures due to their debt burden. Additionally, the government could further incentive these voluntary proceedings by supporting a set of nonbinding restructuring guidelines. However, structural reforms such as this one take time to be implemented, which does not contribute to the confidence of investors in them. Overall, a proper reform of the legal framework of insolvencies is proven to result in both higher recovery rates and in accelerated cash-flows. On one hand, higher recovery rates arise due to an increase in transparency and a decrease in the overall costs regarding the processes of repossession and auction of collateral. On the other hand, faster cash-flows arise from a shortening of both in-court and out-of-court procedures (Fell, Moldovan and O Brien, 2017).

The following step in an active approach is the design of a debt restructuring plan. The first thing to do in a debt restructuring plan, regardless of its form, is to subject the NPLs of the concerned banks to proper valuation and triage, in order to identify the viable exposures to be restructured, and the non-viable exposures to be liquidated (European Systemic Risk Board, 2017). Furthermore, the corresponding LLP have to be properly registered in the banks' balance sheets. If this is done with credibility, it will partially restore the market confidence. However, banks may not voluntarily do enough to resolve this problem, and there are many tools that the

government and the regulators can use to induce banks into making an extra effort. For example, they could set deadlines for banks to dispose of their problem loans, or even set a target value for each bank's LLPs so that their individual capital buffers are optimally used (Bolgova, Nies and Plekhanov, 2016). Governments could additionally offer a tax break on loan write-offs, which could persuade banks to deal with their NPLs sooner (De Haas and Knobloch, 2010).

All the policies previously described are common to all processes of debt restructuring, either decentralized, semi-centralized or centralized. The difference between these three is the mechanism each one uses to manage the bad quality assets and dispose of them (De Haas and Knobloch, 2010).

In a decentralized approach, both the ownership and the management of bad assets remain in the original bank. Banks which suffer from high NPL levels can design their own strategies which, according to the Economic Governance Support Unit of the European Parliament (2016), have to be both ambitious and realistic, and have to include credible NPL reduction targets. These strategies can include internal workout and portfolio sales, which should be accompanied by a new operational plan for the bank (Demertzis and Lehmann, 2017; De Haas and Knobloch, 2010). One of the benefits of this approach is the fact that banks have specific knowledge on each of their debtors, which allows them to better decide on the optimal strategy for each individual debt restructuring plan, having even the possibility to retain customers through this plans. Furthermore, forcing bank managers to deal with this problem directly might have a positive effect on their risk-taking behavior. The adoption of a decentralized approach is only possible if the amount of NPLs within the baking system is limited to a certain threshold. If there is a widespread debt problem that affects the banking system's stability the management of bad assets cannot be exclusive of the original banks. Moreover, if there are too many cases of foreclosures that involve the sale of collateral, an uncoordinated approach will plunge the prices of the assets used as collateral, namely housing prices, which calls for a more centralized

approach. The main disadvantage of an internal management of bad loans is the fact that bank LLPs will not suffer an immediate reduction, continuing to weigh on the bank's balance sheet (De Haas and Knobloch, 2010; Crociata, 2016; European Bank for Reconstruction and Development, 2010).

In a semi-centralized approach, large banks with a high NPL problem set up, for example, their own bad bank in order to deal with their bad assets. These are formally Asset Management Companies (AMCs), which isolate the illiquid and risky assets of a bank or group of banks. When an AMC is set up, it Is used to take over the bad assets on the bank's balance sheet. This transfer is done at a discount on the assets' value, and the gap it leaves in the bank's balance sheet is filled with either public or private capital injections. In a semi-centralized approach, the AMCs created are private and are especially used by large banks, given that those are in a better position to establish an AMC on their own. This facilitates a better valuation of credit quality and NPL value, as well as better credit discipline. Another advantage of an AMC is that it allows the bank to solely focus on its new lending, while the management of impaired assets is done by a different entity. In this scenario, shareholders take significant losses (De Haas and Knobloch, 2010; Aiyar et al, 2015). An AMC should be complemented with other NPL resolution strategies.

A semi-centralized AMC was put in place in Italy in 2016: the Atlanta Fund. The Atlanta Fund was an alternative investment fund created in April 2016, and its main objective was to structure private bail-in solutions. It started with a total capital of €4.25 billion, provided by the majority of Italian financial institutions. It is constituted by 67 banking institutions and none of which owns more than 20 percent of the fund's equity. Its expected Internal Rate of Return (IRR) is 6 percent, it has a time horizon of 5 years with the possibility of extension to 8 years, and is externally managed by Quaestio Capital Management. The fund underwrote new recapitalization for the Italian banks in need, using 70 percent of its initial capital, acquiring the

unsold shares in the market instead of the banks themselves. The fund also purchased the junior tranches of securitized NPL portfolios, using 30 percent of its initial capital. This allowed banks to issue new capital and at the same time partially clean up their NPL stock. As a consequence, the fund is expected to enhance the credibility of the Italian loan market, encouraging foreign investment and reducing the market's bid-ask spread. However, this fund has some shortcomings. Its first weakness is the amount of capital that is available, which is significantly insufficient for the size and number of recapitalizations needed. Furthermore, this mechanism has the stronger financial institutions support the weaker ones. Theoretically, the stronger ones would then benefit from a sounder banking system and from more confidence by the investors; however, this may not actually happen as rating analysts expect the financial profile of the stronger banks to deteriorate. Finally, the fund has the Italian financial institutions as both shareholders and contracting parties, which not only represents a wide conflict of interests but also impairs market efficiency. In spite of its flaws, the fund was able to partially restrain the financial instability in the short run. For example, in May 2016, it acquired BP Vicenza, given that the bank's call for investors had only amounted to 10 percent of the required capital. This intervention amounted to €1.5 billion and prevented the bank from entering into a resolution program. The fund also acquired Veneto Banca for €1 billion. Regarding the purchase of NPL portfolios, the MPS was one of the banks that benefited the most, transferring €27.7 billion in NPL stock to a securitization vehicle within the fund. Simultaneously, the bank raised €5 billion in capital from private investors, which increased its CET1 ratio to 13 percent without the need for any losses for both bondholders and depositors. The fund has a second capital increase in August 2016, which amounted to €1.715 billion to be used for the purchase of NPL portfolios (Messori, 2016; Crociata, 2016; Italian Ministry of Economics and Finance, 2016).

Finally, a centralized approach consists of a highly centralized and public system-wide AMC. This type of centralized asset management firm benefits from an economy of scale, since it is

able to consolidate similar categories of assets and securitize them, which translates into a higher negotiating power against prospect buyers. If individual banks tried to negotiate, the leverage of the buyers would be significantly higher, increasing the discount on the assets' prices. Furthermore, an economy of scale may reduce the fixed costs of asset resolution, as well as increase the efficiency of asset recovery. Therefore, a system-wide AMC has a significant positive impact on small banks. Moreover, it also establishes a uniform valuation principle and ensures proper loan documentation, which is an advantage mainly when compared with the information asymmetries that occur when the banks themselves sell the loans to uninformed buyers. A system-wide AMC also shares some of the previously stated benefits of an individual and private AMC (De Haas and Knobloch, 2010; Aiyar et al, 2015).

One example of a centralized AMC was the bad bank created by the Italian government in November 2015. At the time, there were four banks that had significative structural deficiencies and were in need of restructuring, which led the Italian government to create a bad bank to receive the NPLs of those banks. The transfer of the NPLs was done at 18 percent of its nominal value; their nominal value was €8.5 billion and they were transferred for €1.5 billion. During this process, four new banks were created, destroying the total value for previous shareholders and subordinated debt holders; on the other hand, senior bondholders were safe from any losses. The total amount of capital required was €3.6 billion, half of which was meant to absorb the losses of the bad bank, while the other half was meant to recapitalize the four newly created banks and will be recovered once the shares of these banks are put on the market for sale. The portion of the €3.6 billion that wasn't covered by the total losses of shareholders and junior bondholders was underwritten by the Italian National Resolution Fund (Messori, 2016; Troiano and Fisher, 2015; Raptis, 2016).

However, the best example of a system-wide AMC is SAREB, which was created in Spain in 2016 with the intent of clearing the NPLs of the Spanish banking system, reducing the

uncertainty regarding the strength of banks' balance sheets, as well as to boost their liquidity. The NPLs from the banks' under restructuring were transferred to SAREB, allowing banks to fully concentrate on their main business. SAREB will then divest the portfolio of assets received, maximizing their recovery within the following 15 years. In return for the assets transferred, banks received bonds issued by SAREB and guaranteed by the Spanish state. This trade significantly improved banks' liquidity, given that, while the transferred assets had no usable collateral value, the SAREB bonds can be used as collateral for repos by the Eurosystem or for liquidity management operations run by the Spanish treasure. The Spanish state has two main roles in the functioning of SAREB. On one hand, the government increases its liabilities due to the guarantee provided to SAREB bonds. On the other hand, through the FROB, which is the Spanish national resolution authority, the government also owns 45 percent of SAREB's equity, which means that it absorbs part of its losses and receives part of its earnings. SAREB is able to receive three types of bad assets: foreclosed assets whose net carrying amount exceeded €100,000; loans to real estate developers whose net carrying amount exceeded €250,000, and controlling corporate holdings linked to real estate developers (European Central Bank, 2016). The transfer of these assets was compulsory for banks receiving any public capital injections. It had received initially 200,000 assets, which suffered a haircut of 53 percent when they were transferred, amounting to €50.8 billion. Currently, SAREB has approximately €200 billion of real estate loans on its balance sheet, and its own funds represent 8 percent of its total asset volume (Economic Governance Support Unit of the European Parliament, 2016; Rubinoff, Fanti and Remedios, 2017; Lehmann, 2016; European Commission, 2012).

Both semi.centralized and centralized approaches can prevent banks from becoming extremely risk-averse, improving the conditions for the supply of new credit. Moreover, a strategy which only involves the disposal of bad loans might not be sufficient to restore market confidence,

which implies that banks may not be able to raise new capital (De Haas and Knobloch, 2010; European Central Bank, 2016).

Regardless of which approach is implemented for the management of NPLs, the portfolios have then to be disposed of by banks or government-sponsored agencies, usually through a sale in the loan market. In a sale, the NPL portfolios are transferred to investors, mainly investment banks, hedge funds and private equity firms, for a given price. This operation has an immediate positive impact on banks' profits, due to the reduction of operating costs and the write-down of impaired loans, assuming that the loans had the correct amount of LLP already booked.

A sale of NPLs in the market can be accompanied by an Asset Protection Scheme (APS), which is a mechanism that works as an insurance scheme on further losses on the impaired assets being transacted.

The securitization of NPL portfolios constitutes an APS, and it is based on the tranching of the exposures being sold. By tranching the exposure, different investors with different purposes can acquire tranches with different maturities, risk levels and expected returns. For example, an investor in search of a high expected return rate has the possibility of only buying the junior tranche of the exposure, while an investor in search of a low-risk instrument has the possibility of buying only the senior tranche of the same exposure (European Central Bank, 2017). Therefore, securitization is a useful tool in boosting the NPL market, increasing the pool of investors interested in instruments of bad debt by appealing to more risk-averse investors. Furthermore, if an investor has the opportunity of only acquiring the tranche that best suits its interests, the price the investor is willing to pay is going to increase (Fell, Moldovan and O Brien, 2017). The main advantage of securitization for banks is that NPLs are more quickly derecognized from their balance sheets, as the activity on the loan market is expected to increase. However, in the EU context, banks do not have incentives to securitize their portfolios

of loans due to the strict EU regulation regarding this type of scheme. For example, it imposes high capital charges on banks, making the regulatory cost of securitizing the NPLs high relative to the cost of holding the NPLs on their balance sheet. Moreover, EU regulation also requires investors to incur on the appropriate amount of risk during the life of the transaction, which may not be in line with a securitization scheme (European Systemic Risk Board, 2017).

To improve the efficacy of NPL securitization, governments can adopt a strategy of co-investment, using either a Junior Guarantee on Securitization (JGS) or a Forward Purchase Scheme (FPS) (Fell, Moldovan and O Brien, 2010).

A JGS represents the co-investment of the state and investors on the junior tranches of decomposed exposures. This strategy is structured as a total return swap: the state guarantees up to 50 percent of the investors' losses on the junior tranches of the exposure, and in return is entitles to any returns exceeding the initial estimation. By co-investing, the state is exposed to as much risk as the private investors, providing confidence to the market. AJGS has some advantages. First, it is very flexible, as investors can choose which level of protection they want for their junior tranches (up to 50 percent). The investors' return is then inversely proportional to the level of protection chosen. For example, if an investor requires a 50 percent guarantee, the expected yield for the investment will also decrease by approximately by half; if investors are only exposed to half the losses, they should only be entitled to half of the future earnings. Second, it opens the junior tranches' market to more risk-averse investors, since it de-risks the exposures. Third, since the state's exposure is the same as the investors', these are confident that the state will work to avoid losses, providing them with an investment with an enhanced risk/return profile. Thus, this instruments sends a clear signal to the market that the state is deeply invested in resolving the issue of NPLs. Fourth, the state can put this mechanism in place without the need for initial investment, which is a clear benefit of this model. Finally, the government support to this type of financial structure helps boost the NPL sales through the

elimination of the asymmetry of information between sellers and buyers by giving investors a guarantee of performance in the form of a JGS. In conclusion, a co-investment strategy in the context of securitization is one of the best and most efficient tools for the NPL resolution through the direct sale of portfolios (Economic Governance Support Unit of the European Parliament, 2016; Fell, Moldovan and O Brien, 2017). However, the EU may consider that, in a scheme such as this, the state is not appropriately remunerated by the risk it incurs in, and the burden-sharing principle is not respected, considering the scheme state aid. For example, the EU did not approve the mechanism in Italy when the Italian government was restructuring their pool of LSIs (Less Significant Institutions) (Messori, 2016).

Instead of issuing a guarantee on the junior tranches of NPLs, the state can also issue a guarantee on the senior tranches, which are the least risky ones. This was done in Italy, through GACS (*Garanzia Cartolarizzazione Sofferenze*). This regime, which was open to all banks on a voluntary basis, allowed the Italian government to support NPL portfolios going into the market. It worked through the transfer of the NPL portfolios from the banks' balance sheets into a private securitization vehicle (SPV) at a price up to their book value.The mechanism then issued Asset-Backed Securities (ABSs), with the NPLs being used as the underlying assets, and then sold the ABSs in the market. This scheme only covered the interest and principal payments of the senior tranches of the NPL portfolios, and for this guarantee to be given both the mezzanine and the junior tranches have to be subordinated to the senior tranches. This was considered a budget neutral mechanism and therefore was not considered state aid, being accepted by the EC. GACS is expected to significantly reduce the bid-ask spread in the loan market from both ends: not only banks will be incentivized to dispose of their NPLs, but also investors will increase their demand due to the higher creditworthiness of the exposures on the market. It is also expected to lead the market to trade on more complex deals structures, including sub-performing and performing loans (Messori, 2016; Economic Governance

Support Unit of the European Parliament, 2016; Crociata, 2016; Italian Ministry of Economic and Finance, 2016; European Central Bank, 2016).

Another tool the state has available is an FPS, which consists of a loan provided by the state to NPL buyers as a way to finance part of the price paid, and it is done at rates below the borrower's cost of capital. At the time of the sale, the borrower agrees on the price that it will pay for the NPL. However, that price will only be paid once the exposure reaches its maturity; the price that is paid by the investor at the time of the sale is equal to the bid price of the market. Simultaneously, the government finances the purchase by paying at the time of the sale the difference between the forward agreed price and the bid price. Thus, the part of the price that is financed by the state corresponds to the difference between the price that the buyer is willing to pay in the future and the price it is willing to pay in the present. Once the NPL matures, the state is refunded by the buyer.This scheme helps to partially close the bid-ask spread, given that facing such low-cost financing, buyers are willing to pay a higher price for the NPLs in the future while still being able to achieve their target IRR. Therefore, an FPS allows for NPL transactions that would have never been completed without this incentive. Additionally, it also increases the pool of prospective buyers, which further increases the bid price. As in a JGS scheme, the state is also impacted if there is a loss on the investment, providing the market with a clear signal that it will work to prevent any losses from occurring (Fell, Moldovan and O Brien, 2017).

During any kind of NPL resolution, whether in a debt restructuring program, an asset management process, or a sale of portfolios in the market, the national and European supervisors always have a role to play. For example, authorities should ensure that banks comply with the EU NPL regulation, as well as with the directives for prudent measurement and management of banks' NPL stocks. Furthermore, according to the European Systemic Risk

Board (2017), the supervisors should design the blueprints for an AMC if they are deemed necessary.

In addition to resolving the banking system's NPL stocks, any mechanism chosen should simultaneously resolve the additional impediments that may impair its proper functioning. These impediments can come from three sources: the supply side (banks), from the demand side (prospect investors), and from structural issues (European Systemic Risk Board, 2017).

A supply-side impediment translates into a weak incentive for banks to dispose of their NPLs due to low opportunity costs, mostly induced by accounting rules, tax issues and current capital constraints, and to a coordination issue that creates a first-mover disadvantage. The accounting standards (both IAS 39 and IFR9) allow banks to recognize interest income on NPLs. In the current low-interest environment, the interest income streams on NPLs are likely to be higher than the interest income streams on new sound loans, which increases the banks' profits from a short-term perspective. Additionally, if provisions and write-offs are not immediately tax deductible, the incentives to recognize the losses in a timely manner and resolve NPLs is weakened, as the cost of NPL resolution increases. Finally, the first-mover disadvantage resides in the liquidity problem of a starting loan market. As long as the loan market remains illiquid, a bank that chooses to sell their NPLs would be faced with a large bid-ask spread, resulting in a low sale price. However, the first operation would make the market more liquid, benefiting the following banks. Therefore, no bank wants to be the first to perform their NPL sales (European Systemic Risk Board, 2017).

The demand-side impediments reside mainly on the information asymmetry and licensing requirements of the loan market. Currently, European markets are suffering from a high concentration of potential buyers, mainly due to the existing barriers to entry for investors. This creates an oligopoly situation, with a significant power laying in the investors facing limited

competition. Additionally, loan markets are still very prone to the existence of information asymmetries, as well as uncertainty regarding the portfolios' true value. This causes the market to be seen as a "market for lemons", which results in a large bid-ask spread (European Systemic Risk Board).

Finally, structural issues that may cause an impediment to NPL resolution mainly rely on the inefficiency, length, and cost of the debt recovery processes. These problems affect both sides of the market, creating a deadweight cost. If a country's legal system and judicial proceedings are complex, the investment on portfolios of distressed debt is discouraged, as both the enforcement of the loan collateral and the outcome of the insolvency proceedings might be significantly lengthy, costly and even unpredictable (European systemic Risk Board, 2017).

3. Methodology

For this paper I adopted a qualitative methodology based on documentary analysis, in order to build an approach to the NPL problem in Portugal. The documentary analysis fell on academic papers regarding all aspects of NPLs and on various national and international reports on the Portuguese banking system. Finally, I drew my conclusions from the comparison of the reality of the Portuguese situation and the NPL theoretical framework.

4. The Portuguese Financial Crisis and its Impact on NPL Levels

By the end of the last decade, Portugal had several system-wide financial problems, which included the level of NPLs on the Portuguese banking system.

In 2011, Banco Espírito Santo (BES), Millennium BCP and Caixa Geral de Depósitos (CGD) created restructuring funds in an attempt to deal with their NPL problem. These funds were used to aggregate the credits owned by various banks on big companies that were defaulting; each fund was meant to a different activity sector. The exposures transferred were traded by a participation on each fund, which could not be higher than 20 percent in order to be considered

a financial investment and, therefore, allowing for the funds' losses to not be considered on the banks' profits or losses. The banks then amortize the losses on their financial participation over time, which means that they will not have to recognize the entire loss when the credit defaults. Furthermore, it was believed that the funds would manage the NPL portfolios better. Each fund is managed by a private equity firm. For example, ECS Capital Manages *Fundo Albuquerque*, *Fundo Recuperação*, and *Fundo Recuperação Turismo*. The fund Explorer Investments manages four funds: *Explorer I*, which was created in 2004 and manages €65 million; *Explorer II*, which was created in 2007 and manages €200 million; *Explorer III*, which was created in 2009 and manages €135 million; and *FRN*, which was created in 2013 and manages €8 million. OxyCapital also manages four funds: *Fundo de Reestruturação Empresarial*, *Fundo Aquarius*, *Fundo Recapitalização Centro*, and *Fundo Cometa*. Finally, the private equity firm Vallis manages two funds: *Vallis Sustainable Investments I*, which was created in 2012 and manages €75 million, and *Vallis Construction Sector Consolidation*, which manages €30 million. Bank of Portugal, which is both the supervisory authority and the resolution authority in Portugal, required additional capital regarding these holdings, given the fact that the book value of the transferred assets might not have corresponded to their market value, and thus the value of the holding might represent a hidden loss, which means that a mark-to-market valuation would likely increase the capital needs of the banks. This was supposed to be a temporary solution; however, these funds still exist.

In April 2011, Portugal sought assistance from international authorities, and in May 2011 started the Assistance Programme (AP) supported by the EU, the ECB and the International Monetary Fund (IMF). The program was funded by the European Financial Stabilization Mechanism (EFSM), the European Financial Stability Facility (EFSF), and the IMF, amounting to €78 billion.

One of the objectives of the program was the increase of the Portuguese banks' CET1 ratio, which was, according to Bank of Portugal (2011), 8.7 percent at the start of the program. The aim was to increase it to 9 percent by the end of 2011 and to 10 percent by the end of 2012, maintaining it thereafter. Banks were also required to present by June 2011 a plan on which they state how they intend to comply with these requirements. The total funding available within the AP for this effect was €12 billion, but Portuguese banks only used €6 billion on their CET1 raising efforts. The program also featured a series of special on-site inspections that aimed to validate the data that banks provided regarding their assets for the solvency assessments.

Apart from the AP's funds (€78 billion), there was also made available a fully-funded back-stop facility for Portuguese banks amounting to €35 billion. This mechanism was meant to solve any liquidity problems arising in Portuguese banks, providing funding in the event of their ratings being downgraded below investment grade and, therefore, losing their access to both capital markets and the interbank lending market. During the crisis years, there were, in fact, significant downgradings of Portugal's and its banks' ratings, which led 6 banks to use the back-stop facility. However, out of the €35 billion, only €16.53 billion was used. This had mainly two explanations: on one hand, the period on which Portuguese banks lost their access to the interbank lending market was relatively short, to which contributed the fact that the Portuguese government extended their guarantees on bank bonds in order for them to be used as collateral in the European interbank lending market. On the other hand, Portuguese banks could also borrow funds from the ECB, mechanism which was highly used during this period. The borrowing from the ECB increased from €10.21 billion in December 2008 to €60 billion in June 2012. The dependence of Portuguese banks on ECB funding raised some concerns, which led European authorities to impose mandatory quarterly updates of the banks' capital and funding plans.

In the course of the AP, both the international authorities and the Bank of Portugal instructed banks to reduce their loan-to-deposit ratios, which were, on average, 140.2 percent by the end of 2011. The imposed target was for the eight largest banking groups in Portugal to reduce their loan-to-deposit ratio to 120 percent by the end of 2014, according to the Portuguese Banking Association (2015). These directives were followed by the Portuguese banking system, which even performed better than expected: by the end of 2014, the loan-to-deposit ratio was 107.1 percent.

During the AP, Bank of Portugal also performed four assessments of the Portuguese banking system, in order to compute the total amount of impairments needed. The first assessment was done in 2011, when the AP began, and it uncovered a need of impairments that amounts to €596 million; the second one was done in the second half of 2012, and it uncovered an additional need of €474 in impairments; the third one was done in June and July 2013 and it uncovered an additional need of €1.1 billion; and finally, the fourth assessment was done between October 2013 and March 2014, and it uncovered an additional need for impairments of €1 billion. These assessments were binging, meaning that the exact amount of additional need of impairments for each individual bank had to be met.

The AP also included a mandatory sale of Banco Português de Negócios (BPN). BPN was a Portuguese bank that was, in 2008, in a state of near bankruptcy. The bank was seen by the market as a non-compliant institution, but, in spite of its difficulties, it had benefited from an apparent complacency by the Bank of Portugal. Later that year, it was nationalized, as the government feared that its failure could disturb the Portuguese banking system. The plan to sell BPN contained in the AP did not set a minimum price, but it imposed an accelerated schedule.

In 2014, Portugal, as well as all other countries in the euro-area, went through the Comprehensive Assessment, which was composed by an Asset Quality Review (AQR) and

some stress-testing exercises. The comprehensive assessment was initially performed on four Portuguese banking groups: CGD, Millennium BCP, Banco Português de Investimentos (BPI) and BES. However, since BES had to go through a resolution while the assessment was still ongoing, the bank was removed from it. Both CGD and BPI passed the assessment, but Millennium BCP failed it. Nevertheless, Bank of Portugal declared that the bank had already defined a set of measures to deal with its capital shortfalls, and would therefore not need additional measures once the previous ones were fully adopted.

Between 2012 and 2014, the Portuguese government performed some capital injections on some Portuguese banks, which were mainly made through the issuance of new shares and hybrid capital instruments, such as CoCos, which are state-sponsored convertible bonds eligible for CET1 purposes. When the bank is in need of funding, it can issue CoCos that will be subscribed by the state. If at maturity the bank is able to repay, the state collects the payment and no longer has a claim on the bank. If on the other hand, the bank is unable to repay at maturity, the government converts the bonds into capital instruments and becomes a shareholder of the bank.

In June 2012, there was a public injection of capital on CGD, which totaled €1,650 million. This state aid was performed through two mechanisms: the issuance of 150 million new shares, amounting to €750 million, and the issuance of CoCoc amounting to €900 million. Both these instruments were entirely subscribed by the Portuguese state. On January 2017, the CoCos matured. Instead of repaying the bonds, CGD and the Portuguese state agreed that the bonds would be converted in order to perform a capital increase for the same amount (€900 million). However, the estimated capital needs for CGD totaled €3.9 billion, which led to additional measures, such as the transfer of the state's stake in CGD's subsidiary Percaixa to CGD in January 2017. The state-owned 49 percent of Percaixa's capital, which amounted to €500

million. The remaining €2.5 billion will be injected into CGD through the issuance of new shares, on a date yet to be determined.

Banif, which was an LSI operating on the Portuguese banking system, also benefited from a recapitalization plan, which amounted to €1.1 billion. This plan included a governmental capital injection through the issuance of new shares in 2012, in an operation that amounted to €700 million, and the simultaneous issue of €400 million in CoCos. The plan also required the bank to raise €450 million in private capital. However, this public recapitalization plan was not approved by the European authorities, given that in their opinion the bank had failed to demonstrate sustainable economic viability. This unstable situation led to the cutting of Banif's ECB funding in 2015, which meant that the bank was not able to repay the CoCos. It was then leaked to the press that the bank had to be resolved, which led to a bank run and, consequently, to an emergency support request by the bank. This request was denied, and the resolution mechanism for the bank was activated. During the resolution process, the original bank was divided into three parts: the bad bank, an NPL managing platform called Oitante, and the good bank, which was composed by the branches, deposits and performing loans. The good bank was then sold to Santander for €150 million. The resolution process required state aid from the Portuguese state, which amounted to €2.255 billion, €1.766 billion from the Portuguese treasury and €489 million from Portugal's resolution fund.

Millennium BCP and BPI also issued CoCos, but in their case, the situation was very different. These banks issued, respectively, €3 billion and €1.5 billion in CoCos, which were repaid at maturity, extinguishing all state's claims.

BES was the third largest group operating in Portugal. In July 2014, the bank failed and had to go through a resolution process, which separated the bad bank from the good bank, the newly created Novo Banco. During this process, the Portuguese state also proceeded with an injection

of capital through the issuance of new shares of Novo Banco, in an operation that amounted to €3.9 billion.

Portugal exited the AP on 17 May 2014 without the need for any type of precautionary measures. The Portuguese banking system has now 159 credit institutions, out of which 67 are banks, 88 are mutual agricultural credit banks, and 4 are savings banks. However, there are only 4 SIS - CGD, Millennium BCP, Novo Banco, and BPI -, which represent 60 percent of the total Portuguese banking system.

According to the Portuguese Banking Association (2015), the loans to customers of the non-monetary sector decreased 5.5 percent between May 2011 and May 2015. However, the NPL ratio in December 2015 was still very high: 15 percent of total loans, which correspond to approximately €36.8 billion. This amount was generated during the long and deep financial crisis of the last decade in Portugal, but banks have yet to make serious advances to dismantle them. According to Deloitte (2017), Portuguese loan market activity only started in 2015, when €1.6 billion were traded. In 2016 the loan market activity amounted to €2.3 million divided by six banks: Santander, which presented a global deleveraging target of €1.5 billion for the year; Millennium BCP, which mostly sold secured portfolios throughout the year, but started to sell some secured ones in the last quarter of the year; Montepio, which securitized a portfolio sale during the first three quarters of 2016; Bankinter, which sold a mix of unsecured and secured portfolios on the second half of the year; BBVA, which sold a small amount of secured portfolios in the last quarter of the year; and finally Credito Agricola (CA), which sold a small amount of unsecured portfolios during the third quarter of the year. The expected activity on the market for 2017 is €2.1 billion. Portuguese banks are, therefore, taking their first steps in the loan market, selling mostly unsecured portfolios. These portfolios are highly or even fully provisioned due to the impairment adjustments required by the Bank of Portfolio, which means that the sale is going to generate an immediate profit for the banks.

5. An ACE as a Possible Solution

The solution that the Portuguese government is currently exploring for the NPL problem in Portugal is an ACE (*Acordo Complementar de Empresas*, in English, Complementary Corporate Agreement), which is an agreement between two or more banks in order to deal with bad loans in the balance sheets of those same banks by creating an independent platform that would be responsible for the management, recovery and possible sale of the problem loans. This mechanism does not provide banks with an immediate cleaning of the balance sheets since the NPLs remain in the banks' balance sheets, but it allows for a more efficient recovery of those assets under the management of the ACE.

The Portuguese version of this mechanism is to be an entirely private model, including CGD, Millennium BCP, and Novo Banco, and to only manage corporate loans, whether the debtor is common to all banks or not. This restructuring will aim to perform a coordinated restructuring of the Portuguese corporate debt by the Portuguese banks, preventing companies which are overburdened with debt but are viable to go bankrupt and end up liquidated. Furthermore, ACE will not be an exclusive measure, meaning that it can be complemented by other measures deemed useful in the future.

In spite of being created by CGD, Millennium BCP, and Novo Banco, other Portuguese banks will be able to join the ACE on a voluntary basis once the three original banks fill the platform with a number of loan portfolios large enough. The banks that join later will the benefit from the same condition of the three founding banks.

In order to allow ACEto properly work, banks have to ensure enough capital to deal with imparities. CGD already had a capital increase through the conversion of CoCos, as previously explained. On the other hand, Millennium BCP increased its capital through a rights issue, which is an issuance of shares at special price to existing shareholders in proportion to their

holdings; the biggest capital injection was done by the Chinese group Fosun, which increased its position by €1.33 billion, and Sonangol also slightly subscribed to new shares. Finally, Novo Banco is completing its sale to the Lone Star fund, which includes a contingent capital mechanism.

ACE seems to fall in the semi-centralized approach to the management of the banks'bad assets, given that the ownership of the loans remains on the bank side, but the management is done by an independent entity. However, this entity is controlled by those same banks, which means that the ACE is, in fact, a centralized approach, and it cannot be considered an AMC.

The ACE will be partially funded by the *Institutição Financeira de Desenvolvimento* (IFD, in English Institution for the Financial Development), which was created with the mission to support mainly SMEs. In the ACE context, IFD will intervein by helping to recapitalize the financially degraded family, funding the companies deemed viable so that they do not have to increase their indebtedness to the banking system. Furthermore, if banks themselves were the ones to refinance these companies, their NPL levels would not decrease, since any new credit requested by companies that have already defaulted is automatically classified as NPLs.

The competences of the IFD were recently widened to allow the financing of SMEs and mid-cap companies, as well as the granting of loans through intermediary instruments such as on-lending, which is an arrangement through which IFD borrows money from, for example, European authorities and lends it to Portuguese firms. The new by-laws also define that IFD no longer needs EC's authorization to its support plans as long as the measures comprised in the plans comply with EU state aid regulation.

Therefore, the intervention of IFD will not be a direct one. Once the banks within the ACE decide on which firms are the viable ones and on their corresponding restructuring plans, the

IFD steps in to help with the needed recapitalization processes. This will ensure the needed financing to the companies during the entire process.

One of the main shortcomings of ACE is that it does not represent a systemic solution, as it starts with only three banks. This means that, if a firm has outstanding debt in banks both belonging and not belonging to the ACE, only a portion of its debt will be handled and restructured. Thus, a key component of the mechanism will not be successful. Furthermore, ACE is a very slow solution, as the NPLs remain in the banks' balance sheets while they are being resolved. This increases the severity of the consequences present in an already slow NPL resolution. The misallocation of banks' resources will likely persist, and banks will remain with high funding costs due to the perceived weakness of their balance sheets. Both these factors will not improve until the NPLs are disposed of by the banks, and the ACE does not establish any timeline for that. Lastly, the IFD role is too ambitious, in the manner that it does not have access to sufficient funding to deal with the entire volume of NPLs. Even if the IFD were to redistribute the whole amount of funds available for the ACE, not only that would not be enough to perform the number of restructurings needed, but would also mean stopping all SME's support projects in order to make the whole funding available.

6. A Different Solution

The solution I propose for the Portuguese banking system NPL needs is a solution that is systemic from the start, that can rapidly free the banks' balance sheets, and that does not rely on limited IFD funds. These three conditions can be met through the creation of a system-wide investment fund, similar to an improved version of the Atlanta Fund.

The Atlanta Fund has already been previously described in this paper as an example of a centralized AMC. The fund has two functions: the main one is to recapitalize Italian banks, and the second one is to purchase NPL portfolios from those same banks and sell them on the

market. This AMC is supported by GACS, an APS that provides a state guarantee on the portfolios' senior tranches. The fund has an expected IRR of 6 percent.

The fund has had very good short-term results. According to Deloitte (2017), the combination of Atlanta and GACS contributed to the development of the Italian loan market, which is currently the most active in Europe: €3.7 billion in trades in 2014, €17.3 billion in 2015, €36 billion in 2016, and an expected €52.8 billion in 2017. However, this fund has some shortcomings that cannot only impair its short-term results but also deteriorate its long-term viability. On one hand, the amount of capital available in the case of Atlanta was clearly not sufficient, and it could not be substantially increased due to the capital constraints of the contributing banks. On the other hand, the stronger banks were called to support the weaker banks, which lead to a decrease in their risk profile and not to an improvement on the whole banking system as some expected. Finally, the presence of banks as both the shareholders and the contracting parties of the fund represented a significant shortcoming of the fund, as it created a clear conflict of interests and also impaired market efficiency. If these shortcomings are overcome, a centralized private AMC is the best solution for a systemic NPL problem within a banking system.

Therefore, the AMC I propose for the Portuguese case differs from the Atlanta Fund in a number of aspects. First of all, it should have its priorities reversed: as the Portuguese banks have already performed some capital increases, the majority of the AMC's capital should be focused on the purchase of NPLs. Furthermore, Atlanta worked partially due to the acceptance by its shareholders (the banks) of an IRR of 6 percent. The only way that the Portuguese AMC would have to attract investors who accept such an IRR without making the same mistake as Atlanta is to search for a different type of investors. Typically, loan market investors search for an IRR of 15 to 20 percent, given that they tend to invest in the short-term. However, long-term investors such as pension funds and insurance companies are on the market for a lower IRR.

An IRR of 6 percent would significantly decrease the gap between the NPL's book value and the value for which they are transferred to the fund, and consequently, the additional capital needs of the banks would be smaller. Nevertheless, banks still have some capital needs, as the gap gets smaller but does not disappear. These capital needs would also be met through the AMC, which could absorb financial instruments issued by the banks. The purchase of capital instruments by the fund would also allow investors to benefit from future bank profits, which would be partially created by the cleansing of the banking system.

As seen before, the short-term success of the Atlanta Fund was partially due to the simultaneous implementation of GACS, which is an APS. Thus, an APS should also be implemented simultaneously. For the investors acquiring debt instruments from the fund, it could be implemented a state guarantee on some classes of debt notes. As the senior notes have priority over the other classes of notes, they are the least risky ones. We already know from the Italian experience that European authorities are more likely to approve APSs with the least possible risk for the state. Therefore, a state guarantee on the senior notes would be a suitable APS regarding debt instruments. For the investors acquiring equity instruments, a good choice would be to perform the APS through some type of fiscal credit over capital losses on the investment. Both these proposals for APSs have to be approved by European authorities before they can be implemented.

Regarding the management of NPLs, the AMC's structure would be a classic one. First, it would divide debtors and their correspondent exposures between viable and non-viable. The exposures of non-viable firms would then be liquidated and its collateral repossessed, while the exposures to viable debtors would be the target of a debt-restructuring plan, that could include debt extensions and/or debt-to-equity swaps. These management principles aim at maximizing the value of the total NPLs.

This solution clearly solves the shortcomings of the Atlanta Fund: banks are only the contracting party and not the shareholders, there are no pre-existing limits to the amount of capital that the AMC can arise among private investors, and the stronger banks do not have to deteriorate its risk profile by supporting weaker banks. A structure like this also has several advantages when compared with the ACE. First, it is a solution open to all banks of the system from the start, and therefore can be considered a real systemic solution. In addition, it provides a quick vehicle for banks to clean their balance sheets of NPLs, stopping almost immediately with the misallocation of resources and the high funding costs. Finally, and although the intervention by the state is needed for the APS, the fund is not directly dependent on government funding, which often represents slow processes and a large load of bureaucracy.

Therefore, a centralized system-wide private AMC should be implemented in Portugal in order to systematically and definitively solve the NPL problem in the Portuguese banking system, as well as to prevent more NPL build-ups in the future.

7. Conclusion

My analysis suggests that a system-wide private AMC is the best solution for the Portuguese problem of NPLs, as it would allow for a systematic and definitive solution that prevents more NPL build-ups in the future. This solution should be discussed with the ECB and then implemented as soon as possible in order to prevent the extension of the consequences for the economy as a whole.

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